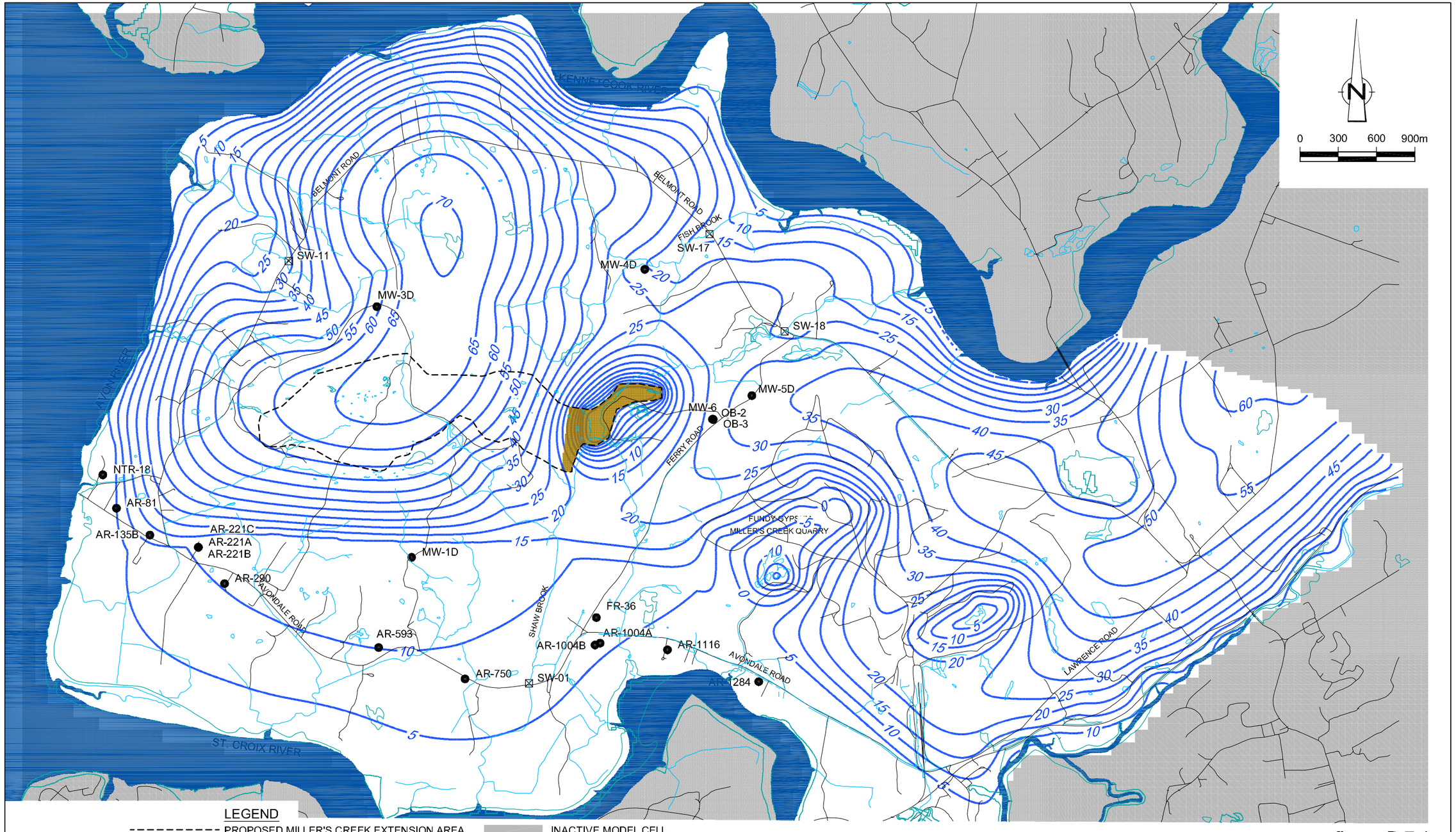
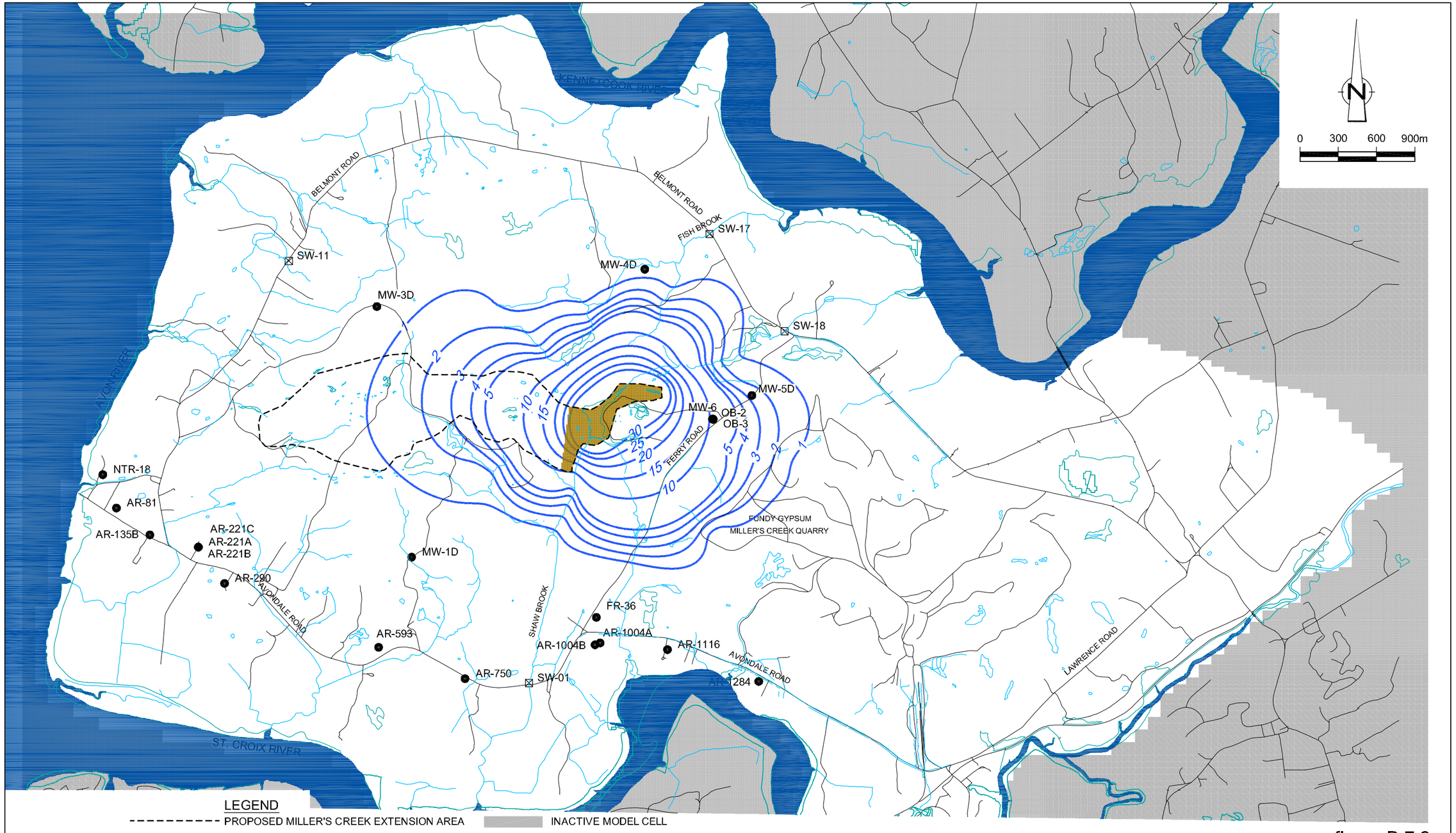


figure B.7.1

SIMULATED GROUNDWATER ELEVATION (END OF 20 YEARS)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
Hants County, Nova Scotia

820677-K(009)GN-DA008 AUGUST 21/2009



LEGEND

- PROPOSED MILLER'S CREEK EXTENSION AREA
- INACTIVE MODEL CELL
- ROAD
- WATER FEATURE
- WETLAND
- SURFACE WATER STATION
- BEDROCK MONITORING LOCATION
- EXTRACTION AREA
- 5 — SIMULATED GROUNDWATER DRAWDOWN (m)

NOTE: DRAWDOWN IS RELATIVE TO THE EXISTING CONDITION (FIGURE B.6.1)

figure B.7.2

SIMULATED GROUNDWATER DRAWDOWN (END OF 20 YEARS)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
Hants County, Nova Scotia

820677-K(009)GN-DA009 AUGUST 21/2009

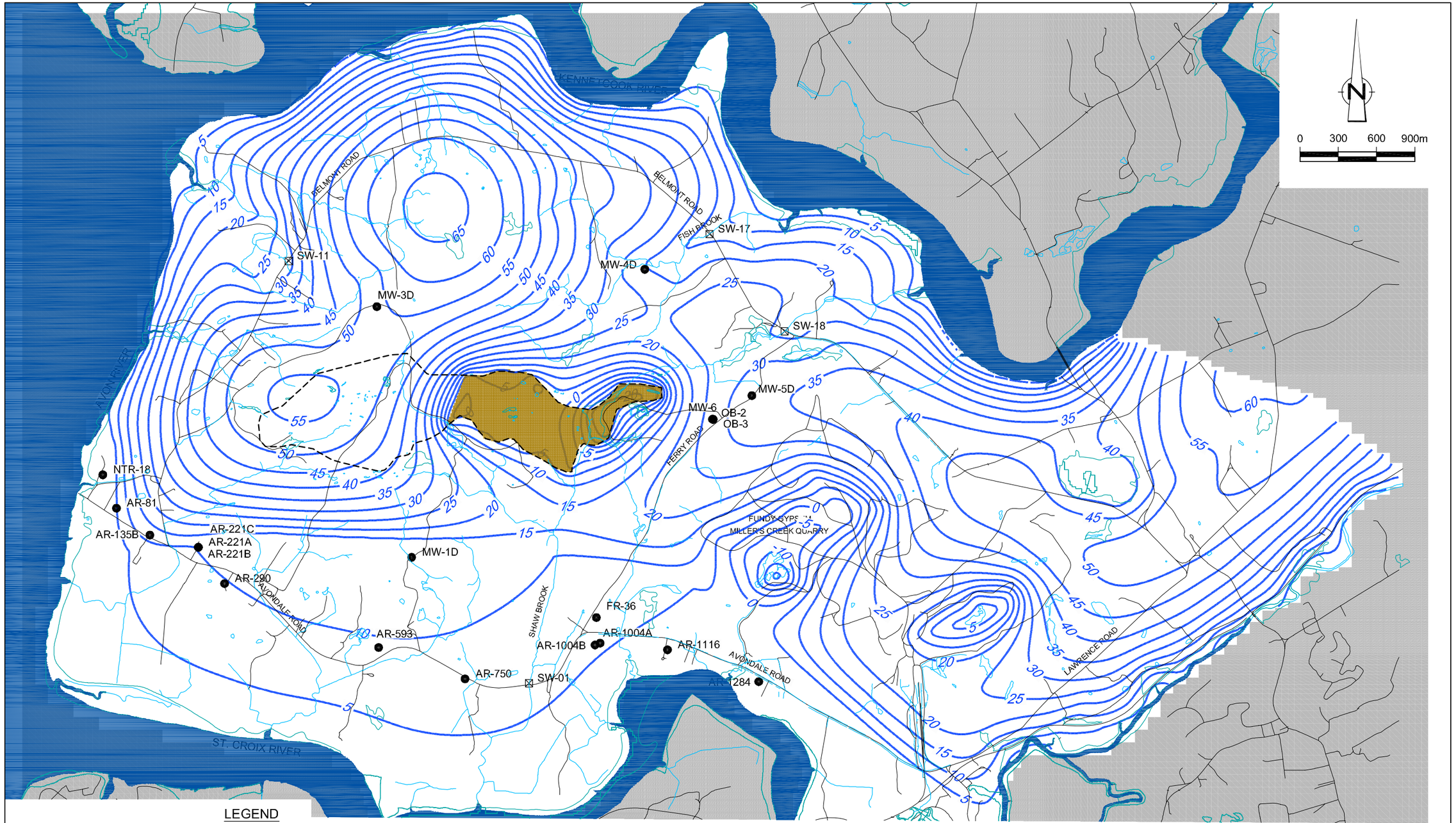
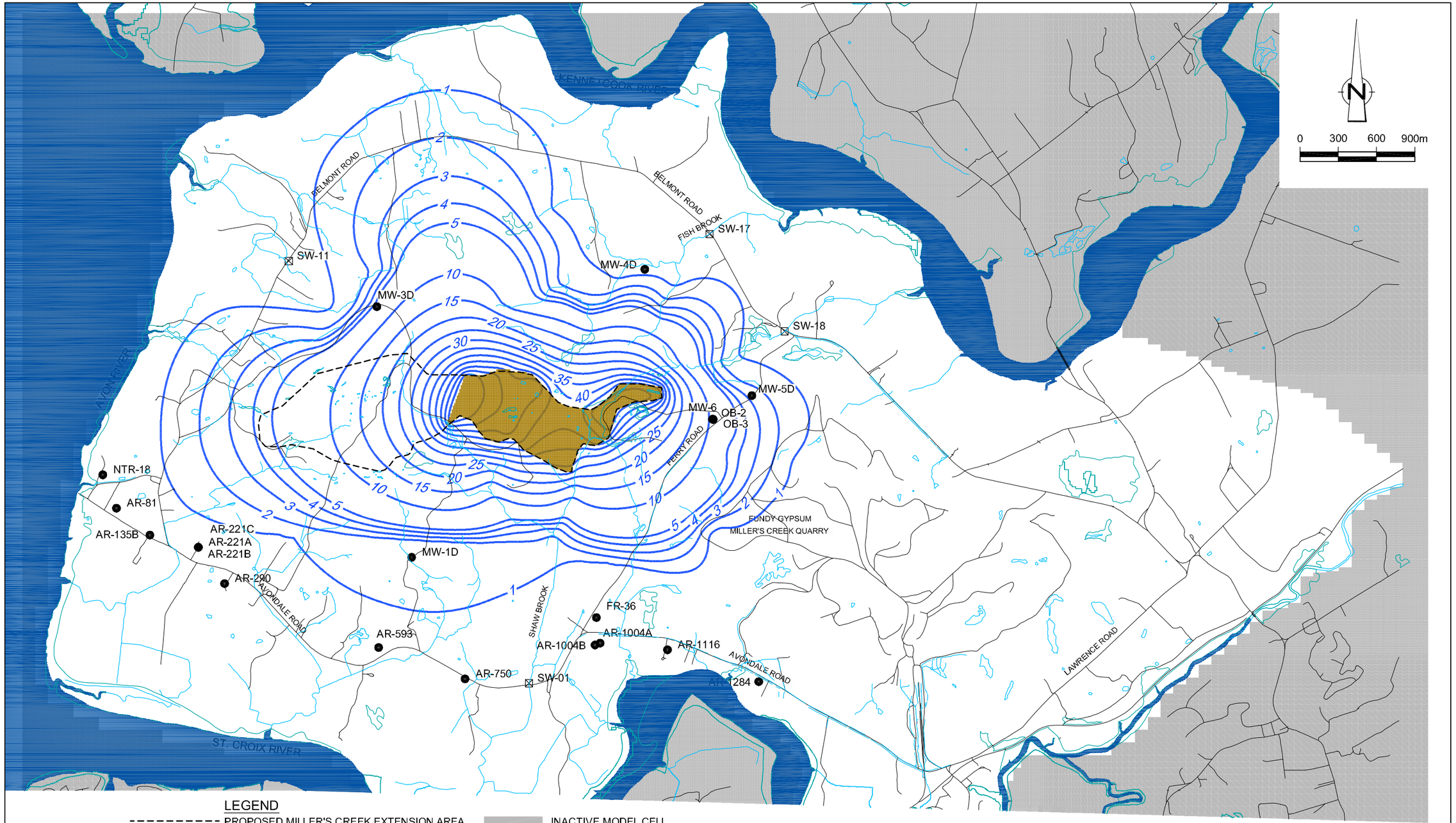


figure B.7.3

SIMULATED GROUNDWATER ELEVATION (END OF 40 YEARS)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
Hants County, Nova Scotia

820677-K(009)GN-DA010 AUGUST 21/2009



LEGEND

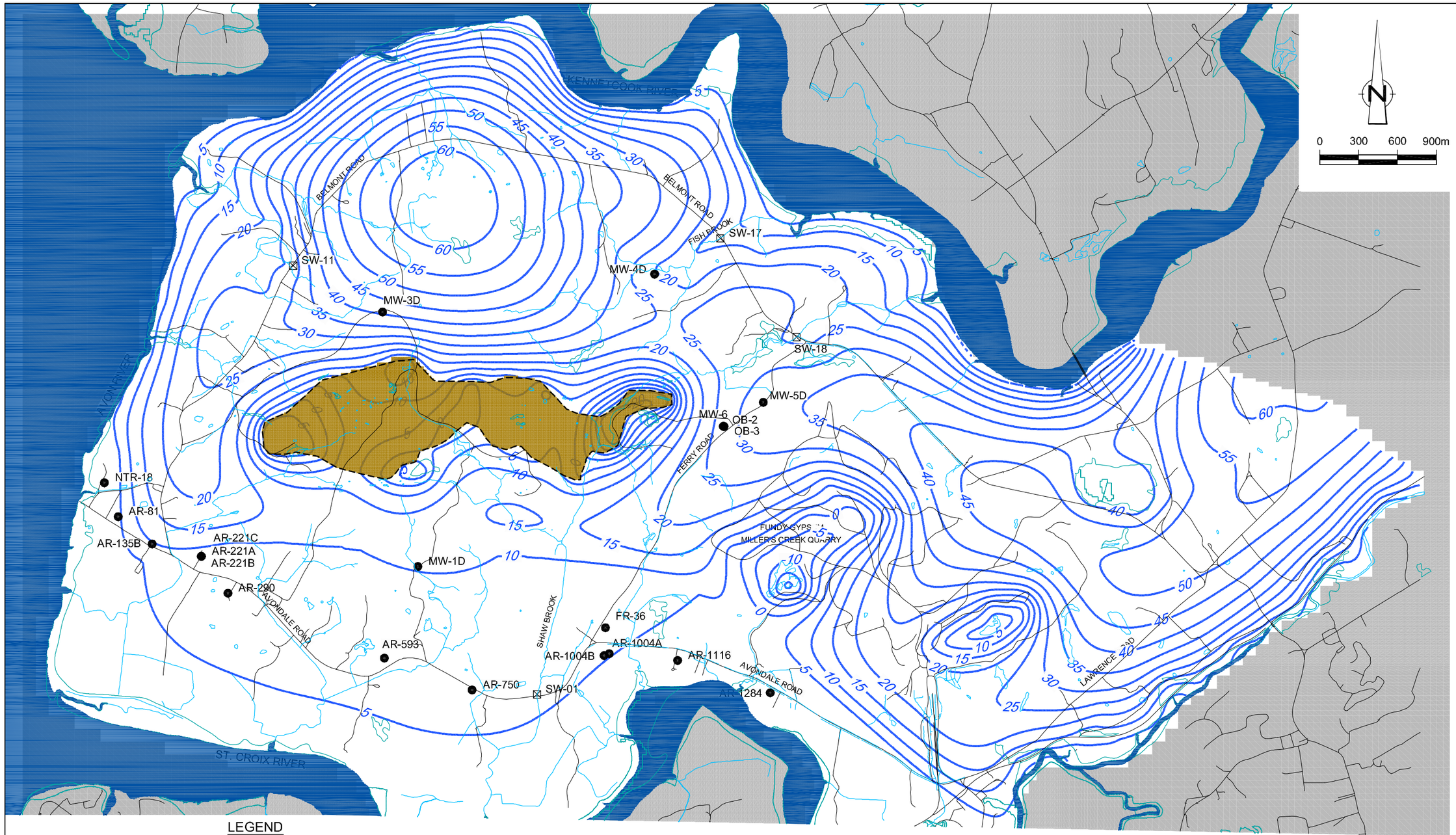
- PROPOSED MILLER'S CREEK EXTENSION AREA
- INACTIVE MODEL CELL
- ROAD
- WATER FEATURE
- WETLAND
- SURFACE WATER STATION
- BEDROCK MONITORING LOCATION
- EXTRACTION AREA (FULLY DEWATERED)
- 5 — SIMULATED GROUNDWATER DRAWDOWN (m)

NOTE: DRAWDOWN IS RELATIVE TO THE EXISTING CONDITION (FIGURE B.6.1)

figure B.7.4

SIMULATED GROUNDWATER DRAWDOWN (END OF 40 YEARS)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
Hants County, Nova Scotia

820677-K(009)GN-DA011 AUGUST 21/2009



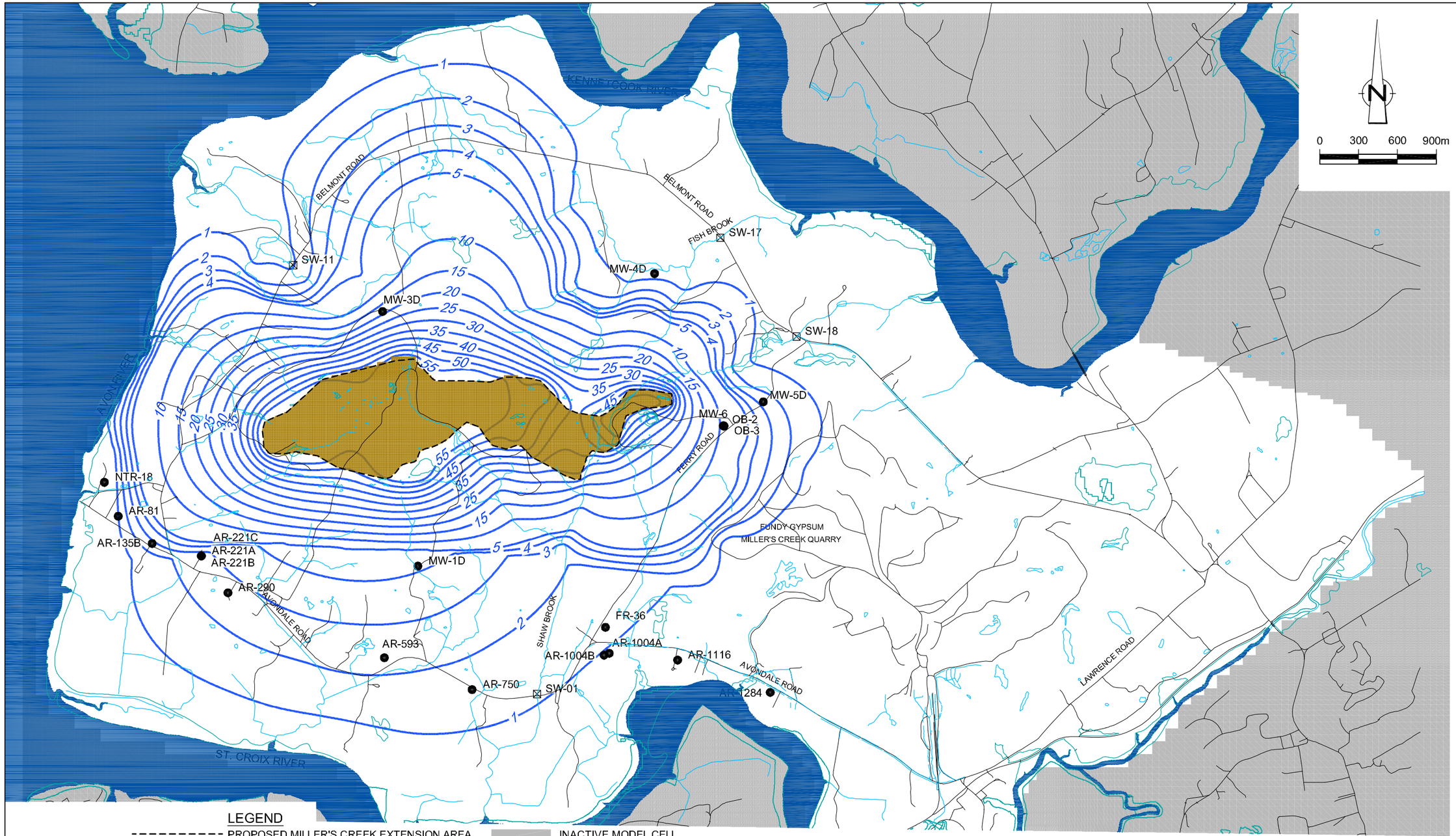
LEGEND

- PROPOSED MILLER'S CREEK EXTENSION AREA
- ROAD
- WATER FEATURE
- WETLAND
- SURFACE WATER STATION
- BEDROCK MONITORING LOCATION
- EXTRACTION AREA (FULLY DEWATERED)
- 5 SIMULATED GROUNDWATER ELEVATION (mAMSL)
- INACTIVE MODEL CELL

figure B.7.5

SIMULATED GROUNDWATER ELEVATION (END OF MINE LIFE)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
Hants County, Nova Scotia

820677-K(009)GN-DA012 AUGUST 21/2009



LEGEND

- PROPOSED MILLER'S CREEK EXTENSION AREA
- INACTIVE MODEL CELL
- ROAD
- WATER FEATURE
- WETLAND
- SURFACE WATER STATION
- BEDROCK MONITORING LOCATION
- EXTRACTION AREA
- 5 — SIMULATED GROUNDWATER DRAWDOWN (m)

NOTE: DRAWDOWN IS RELATIVE TO THE EXISTING CONDITION (FIGURE B.6.1)

figure B.7.6

SIMULATED GROUNDWATER DRAWDOWN (END OF MINE LIFE)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
Hants County, Nova Scotia

820677-K(009)GN-DA013 AUGUST 21/2009

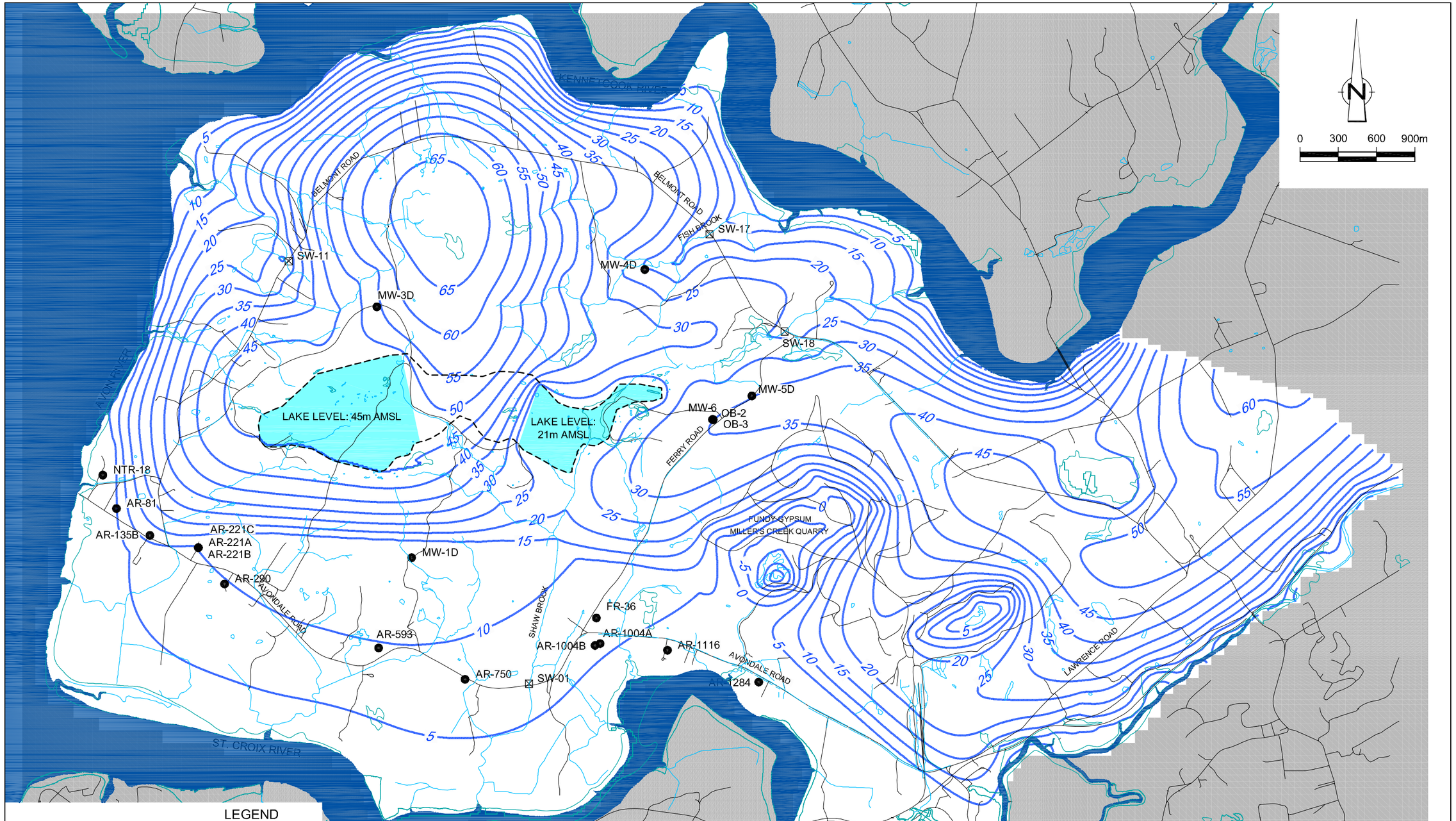
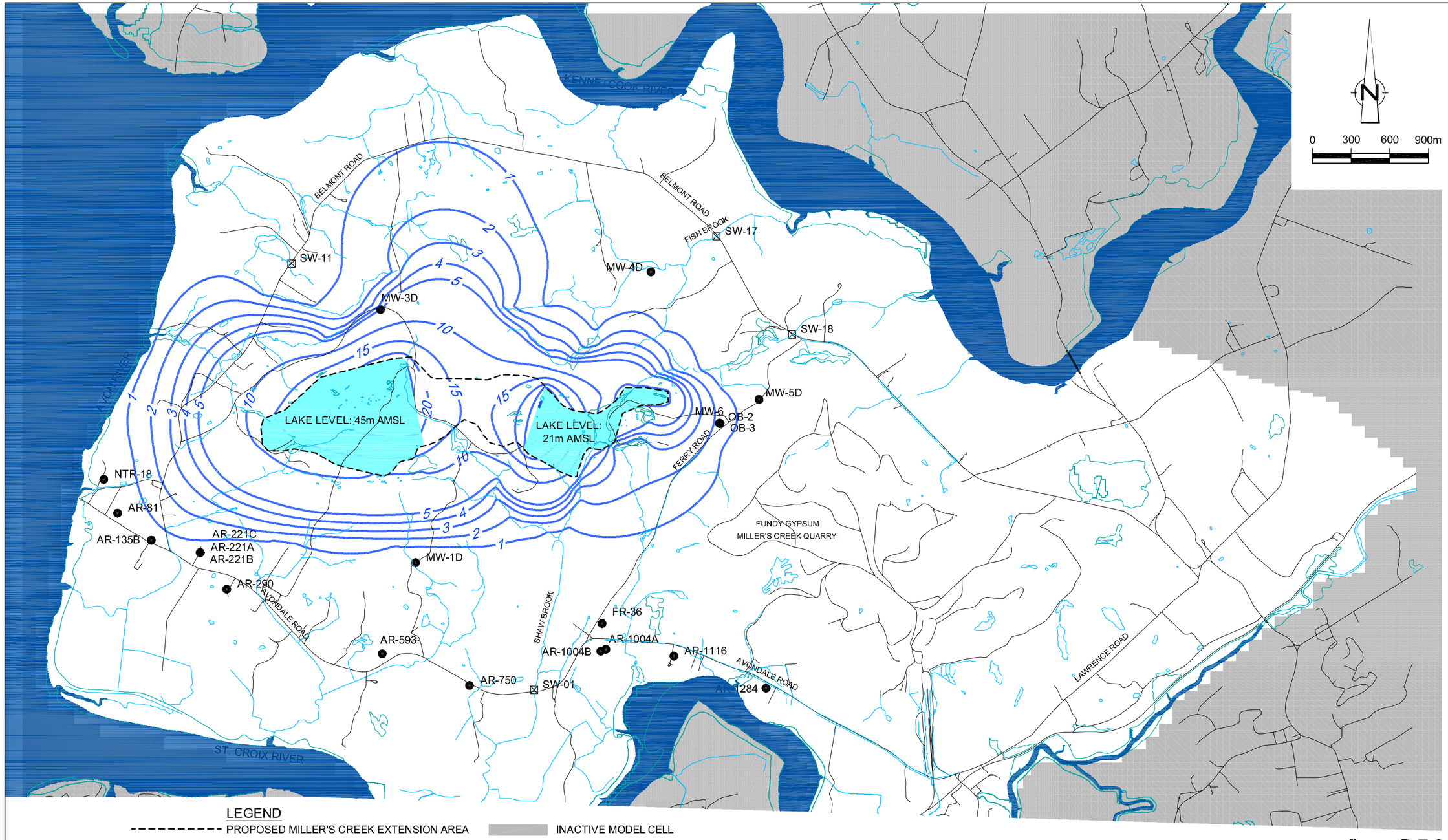


figure B.7.7

SIMULATED GROUNDWATER ELEVATION (FULL REHABILITATION CONDITION)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
Hants County, Nova Scotia

820677-K(009)GN-DA014 AUGUST 21/2009



LEGEND

- PROPOSED MILLER'S CREEK EXTENSION AREA
- ROAD
- WATER FEATURE
- WETLAND
- SURFACE WATER STATION
- BEDROCK MONITORING LOCATION
- REHABILITATION LAKE
- 5 SIMULATED GROUNDWATER DRAWDOWN (m)

NOTE: DRAWDOWN IS RELATIVE TO THE EXISTING CONDITION (FIGURE B.6.1)

INACTIVE MODEL CELL

figure B.7.8

SIMULATED GROUNDWATER DRAWDOWN (FULL REHABILITATION CONDITION)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
Hants County, Nova Scotia

820677-K(009)GN-DA015 AUGUST 21/2009

TABLE B.6.1

GROUNDWATER ELEVATIONS AND RESIDUALS
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
HANTS COUNTY, NOVA SCOTIA

Monitoring Well [1]	*Observed (or Static) Groundwater Elevation (m AMSL)*	*Simulated Groundwater Elevation (m AMSL)*	*Residual* [2] *(m)*	*Well Locations*
MW-3S	57.14	58.16	1.02	Site Wells
MW-4S	18.20	16.92	-1.29	
MW-5S	37.59	35.60	-1.99	
PZ-1A/B	21.77	21.83	0.06	
PZ-2A/B	31.75	31.53	-0.22	
PZ-3	29.53	28.34	-1.19	
PZ-4	29.76	30.26	0.50	
PZ-5A/B	25.88	25.30	-0.57	
PZ-6A	17.64	17.29	-0.35	
PZ-7A/B	30.09	29.01	-1.08	
MW-1D	10.80	14.23	3.43	
MW-3D	56.85	58.67	1.83	
MW-4D	18.37	19.07	0.70	
MW-5D	37.80	35.41	-2.39	
MW-6	37.65	36.87	-0.78	
OB-2	36.82	36.86	0.04	
OB-3	37.18	36.86	-0.32	Site Wells
BR-1272A/B	33.01	24.79	-8.21	Domestic Wells
BR-1297	21.15	18.66	-2.49	
BR-1308A/B	18.15	16.36	-1.79	
FR-555	27.26	28.38	1.12	
FR-575	23.53	25.07	1.53	
AR-1004A	1.49	6.13	4.64	
AR-1004B	5.38	6.25	0.87	
AR-1116	1.58	3.02	1.44	
AR-1284	3.95	1.48	-2.47	
AR-135B	16.61	12.61	-4.00	
AR-221A	7.88	10.71	2.83	
AR-290	11.68	10.35	-1.33	
AR-750	10.99	8.18	-2.81	
AR-81	9.84	5.11	-4.73	
NTR-18	1.42	1.46	0.04	
AR-221B	7.57	10.71	3.14	
AR-593	2.11	10.18	8.07	
FR-36	1.44	7.59	6.15	
AR-221C	2.69	10.70	8.01	Domestic Wells

Note:

(1) Domestic A & B wells that are at the same location and hydraulic unit are considered as one target with average level.
(2) Residual is equal to the simulated groundwater elevation minus the observed groundwater elevation.

TABLE B.6.2

STREAM FLOW RATES COMPARISON
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
HANTS COUNTY, NOVA SCOTIA

Surface Station ID	*Observed Range of Stream Flow Rate*[1] *L/s*	*Simulated Baseflow Rate L/s*
SW-01	6.21 - 67.10	2.21
SW-11	0 - 1.13	0.30
SW-17	0 - 33.58	3.03
SW-18	0.39 - 12.84	0.63

Note:

1 - The observed stream flow rates were probably higher than the actual baseflow rates, because even the lowest flow (Sept 29, 2006) was observed after precipitation events.

TABLE B.7.1

SIMULATED STREAM BASEFLOW CHANGE AND DEWATERING RATE (END OF 20 YEARS)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
HANTS COUNTY, NOVA SCOTIA

Surface Water Station ID	*Baseflow (Existing Condition) L/s*	*Baseflow (End of 20 Years) L/s*	*Change (%)*
SW-01	2.21	0.58	-74%
SW-11	0.30	0.30	-1%
SW-17	3.03	2.36	-22%
SW-18	0.63	0.36	-43%

Note: Negative percentage indicates a flow reduction

ESTIMATED DEWATERING RATE

Groundwater inflow (L/s)	3.1
Phase Floor Area (m^2)	184,000
Quarry Floor Runoff (mm/yr)	690
Estimated Runoff to collect (L/s)	4.0
Total Dewater Rate (L/s)	7.2
Total Dewater Rate (Igpm)	94.6

Note: Mine floor is assumed to have the same evapotranspiration as a lake since the existing mine floor typically remains wet.

TABLE B.7.2

SIMULATED STREAM BASEFLOW CHANGE AND DEWATERING RATE (END OF 40 YEARS)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
HANTS COUNTY, NOVA SCOTIA

Surface Water Station ID	*Baseflow (Existing Condition)*	*Baseflow (End of 40 Years)*	
	L/s	*L/s*	*Change (%)*
SW-01	2.21	0.01	-100%
SW-11	0.30	0.29	-4%
SW-17	3.03	1.78	-41%
SW-18	0.63	0.36	-43%

Note: Negative percentage indicates a flow reduction

ESTIMATED DEWATERING RATE

Groundwater inflow (L/s)	5.7
Phase Floor Area (m^2)	625,500
Quarry Floor Runoff (mm/yr)	690
Estimated Runoff to collect (L/s	13.7
Total Dewater Rate (L/s)	19.4
Total Dewater Rate (Igpm)	256.0

Note: Mine floor is assumed to have the same evapotranspiration as a lake since the existing mine floor typically remains wet.

TABLE B.7.3

SIMULATED STREAM BASEFLOW CHANGE DEWATERING RATE (END OF MINE LIFE)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
HANTS COUNTY, NOVA SCOTIA

Surface Water Station ID	*Baseflow (Existing Condition) L/s*	*Baseflow (End of Mine Life) L/s*	*Change (%)*
SW-01	2.21	0.00	-100%
SW-11	0.30	0.23	-23%
SW-17	3.03	1.70	-44%
SW-18	0.63	0.36	-43%

Note: Negative percentage indicates a flow reduction

ESTIMATED DEWATERING RATE

Groundwater inflow (L/s)	19.5
Phase Floor Area (m^2)	1,571,580
Quarry Floor Runoff (mm/yr)	690
Estimated Runoff to collect (L/s	34.4
Total Dewater Rate (L/s)	53.9
Total Dewater Rate (Igpm)	710.8

Note: Mine floor is assumed to have the same evapotranspiration as a lake since the existing mine floor typically remains wet.

TABLE B.7.4

SIMULATED STREAM BASEFLOW CHANGE (REHABILITATION CONDITION)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
HANTS COUNTY, NOVA SCOTIA

Surface Water Station ID	*Baseflow (Existing Condition) L/s*	*Baseflow Rate (Rehabilitation Condition) L/s*	*Change (%)*
SW-01	2.21	2.79	26%
SW-11	0.30	0.28	-6%
SW-17	3.03	2.46	-19%
SW-18	0.63	0.58	-9%

Notes: Negative percentage indicates a flow reduction

TABLE B.7.5

ESTIMATED LAKE FILLING TIME (AFTER FULL EXTENSION)
MILLER'S CREEK MINE EXTENSION PROJECT
CGC INC. - WINDSOR PLANT
HANTS COUNTY, NOVA SCOTIA

Estimated Total Available Water	*East Lake*	*West Lake*
Average Groundwater Inflow (L/s)	4.88 (1)	4.88 (1)
Lake Area (m^2)	342,553	775,223
Recharge over Lake (Precipitation-ET) (mm/yr)	690 (2)	690 (2)
Estimated Recharge to Collect (L/s)	7.49	16.96
Total Available Water (L/s)	12.37	21.84

Estimated Lake Filling Times

Potential Lake Levels m AMSL	*Estimated Volume to Fill m^3*	*Time Required to Fill Years*
21 (East Lake)	9,309,921	24 (3)
45 (West Lake)	32,489,454	47 (3)

Note:

(1) A quarter of the groundwater inflow simulated at the end of mine life.
(2) Recharge over lake was based on Canadian Climate Normals (1971-2000) available from Environment Canada as observed at the Truro Station, Nova Scotia.
(3) Lake filling time was estimated conservatively with an assumption that no surface water runs off into the mine.